DEER HERD UNIT MANAGEMENT PLAN
Deer Herd Unit # 11
(Nine Mile)
April, 2006

BOUNDARY DESCRIPTION

Duchesne, Uintah, Carbon, Emery counties - Boundary begins at Duchesne and US 191; southwest on US 191 to US 6; south on US 6 to I-70; east on I-70 to the Green River; north on the Green River to the Duchesne River; west along this river to Highway US-40; west on US-40 to Duchesne and US 191.

LAND OWNERSHIP

RANGE AREA AND APPROXIMATE OWNERSHIP

	Yearlong range		Summer Range		Winter Range	
Ownership	**Area (acres)**	**%**	**Area (acres)**	**%**	**Area (acres)**	**%**
Forest Service	7240	1%	35036	10%	57349	11%
Bureau of Land Management	315657	59%	111058	31%	296492	57%
Utah State Institutional Trust Lands	38845	7%	28819	8%	38596	8%
Native American Trust Lands	48508	9%	0	0%	48686	9%
Private	116726	22%	178895	51%	70679	14%
Department of Defense	0	0%	0	0%	0	0%
USFWS Refuge	0	0%	0	0%	0	0%
National Parks	0	0%	0	0%	0	0%
Utah State Parks	0	0%	0	0%	0	0%
Utah Division of Wildlife Resources	4890	1%	0	0%	6906	1%
TOTAL	531866	100%	353808	100%	518708	100%

UNIT MANAGEMENT GOALS

Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, including hunting and viewing. Balance deer herd impacts on human needs, such as private property rights, agricultural crops and local economies. Maintain the population at a level that is within the short and long term carrying capacity of the available habitat. Range trend studies conducted by DWR will be used to evaluate deer habitat health, trend, and carrying capacity. The DCI index was created as an indicator of the general health of big game winter ranges. The index incorporates shrub cover, density and age composition as well as other key vegetation variables. Decreases in DCI suggest that winter range capacity has decreased.

POPULATION MANAGEMENT OBJECTIVES

< Target Winter Herd Size:

< **Long Term Objective** – Manage for a winter population of 8,500 deer, distributed across the Range Creek (6,000 deer) and Anthro (2,500 deer) subunits.

<

Unit 11	2005 Population Estimate	2001 Management Plan Objective	2006 Management Plan Objective	% Change
Range Creek Subunit	2,450	6,000	6,000	0
Anthro Subunit	1,500	2,500	2,500	0
TOTAL	3,950	8,500	8,500	0

Short Term Objective – Manage deer populations according to range conditions based on DCI scores on winter ranges. Where winter range is a limiting factor, reduce the population objective for the five-year life of the plan by 20% on any subunit when weighted DCI score falls in to "poor" classification or below. On subunits where winter range condition is classified as "fair" or better deer populations will be allowed to expand toward current long-term objectives (See Habitat Management Objectives Section)

Management toward short-term objectives should consider the following;

- Winter range is not a primary limiting factor to deer population growth on the Nine Mile unit.
- Declines in winter range carrying capacity are currently not entirely a result of over utilization by deer.
- Population control (if needed) and habitat improvement projects should be focused on areas where range degradation is most prevalent.
- Short term population objectives should be evaluated and updated every 5 years as new Range Trend data is compiled.
- Biologists should closely monitor winter ranges. If deer utilization is excessive and is causing range degradation and increased over-winter deer mortality, short-term objectives should be reduced.

< Herd Composition – Maintain a region-wide three year average postseason buck to doe ratio of 15 to 20 bucks per 100 does.

< Harvest - General deer hunt regulations. May be necessary to establish a hunt unit cap to reach objectives.

POPULATION MANAGEMENT STRATEGIES

Monitoring

< Population Size - Utilizing harvest data, postseason and spring classifications and mortality estimates, a computer model has been developed to estimate winter population size.

< Buck Age Structure - Monitor age class structure of the buck population through the use of checking stations, postseason classification, uniform harvest surveys and field bag checks.

< Harvest - The primary means of monitoring harvest will be through the statewide uniform harvest survey. Achieve the target population size by use of antlerless harvest using a variety of harvest methods and seasons. The winter population should result in an expected annual buck harvest of 250 on subunit 11a, and 600 on subunit 11b when normal conditions occur, but recognize that buck harvest will be above or below what is expected due to climatic and productivity variables. Buck harvest strategies will be developed through the RAC and Wildlife Board process to achieve management objectives for buck:doe ratios.

Limiting Factors (May prevent achieving management objectives)

< Crop Depredation - Take all steps necessary to minimize depredation as prescribed by state law and DWR policy.

< Habitat – Summer ranges are likely more of a limiting factor to population growth than winter range. Winter ranges are becoming fragmented by extensive oil and gas development in recent years. Overall habitat loss due to development has slightly reduced winter range carrying capacity. Deer use of these areas may diminish as development continues. Pinyon-juniper encroachment is prevalent in many sagebrush stands. Large tracts of Wyoming big sagebrush stands experienced a die-off in 2003 as a result of extreme drought. Excessive habitat utilization will be addressed using focuses antlerless harvests.

< Predation - Refer to DWR predator management policy. Conduct predator management activities when deer herd numbers are below population “triggers” indicated in DWR predator management plan. The Nine Mile unit is currently managed under a predator management plan.

Assess need for control by predator species, geographic area and season of year.

Seek assistance from USDA/Wildlife Services when deer populations are depressed and where there is a reasonable chance of gaining some relief through a predator control effort. Predator control efforts will be concentrated around the spring fawning period.

Recommend cougar harvest to benefit deer while maintaining the cougar as a valued resource in its own right.

< Highway Mortality - Cooperate with the Utah Dept. Of Transportation in construction of highway fences, passage structures and warning signs etc.

< Illegal Harvest - Should illegal kill become an identified and significant source of mortality attempt to develop specific preventive measures within the context of an Action Plan developed in cooperation with the Law Enforcement Section.

HABITAT MANAGEMENT OBJECTIVES

Condition of deer winter range on Unit 11a (Nine Mile, Anthro), as indicated by DWR range trend surveys.

Year	Mean DCI score for Subunit	Classification	Unit-specific DCI score range: Poor	Unit-specific DCI score range: Fair	Unit-specific DCI score range: Good
1995	62	Good	10 – 24	25 – 44	45 - 64
2000	47	Good			
2005	65	Excellent			

Condition of deer winter range on Unit 11b (Nine Mile, Range Creek), as indicated by DWR range trend surveys.

Year	Mean DCI score for Subunit	Classification	Unit-specific DCI score range: Poor	Unit-specific DCI score range: Fair	Unit-specific DCI score range: Good
1995	49	Fair	18 - 32	33 – 50	51 - 69
2000	50	Fair			
2005	51	Good			

< Continue to improve and restore sagebrush steppe habitats critical to deer according to DWR's Habitat Initiative. Cooperate with federal land management agencies and private landowners in carrying out habitat improvements such as reseedings, controlled burns, water developments etc. on public and private lands. The Habitat Initiative has a goal of improving 20,000 acres per year per region. UPCD priority areas should coincide with management priorities for this unit (ie. Summer and winter ranges).

< Work with private and federal agencies to maintain and protect critical and existing summer and winter ranges from future losses.

< Effectively minimize or mitigate for habitat losses due to oil and gas development.

< Provide improved habitat security and escapement opportunities for deer.

HABITAT MANAGEMENT STRATEGIES

< Continue to monitor permanent range trend studies located throughout the unit.

< Conduct cooperative seasonal range rides and surveys to evaluate forage condition and utilization.

< Work cooperatively to utilize grazing, prescribed burning and other recognized vegetative manipulation techniques to enhance deer forage quantity and quality.

< Utilize antlerless deer harvest to improve or protect forage conditions if and when vegetative declines are attributed to deer over utilization.

< Cooperate with and provide input to land management planning efforts dealing with management decisions affecting habitat security, quality and quantity.

PERMANENT RANGE TREND DATA SUMMARIES (Added 2005)

Unit 11a, Nine Mile/Anthro Subunit

There are five range trend sites on the Anthro portion of the Nine Mile Management Unit. Three of these are on summer range areas and two on winter range sites to the north. The studies were revisited in 2005 but only data for the two winter range sites has been summarized and made available for DCI index comparisons. Results from 2000 studies indicate that summer range sites had stable soil trends with a slightly upward herbaceous trend and stable browse trend. The two winter range sites indicated little erosion although there were signs of serious erosion in the past. The herbaceous understory trend was slightly downward and the browse trend stable.

Pinyon and junipers stands dominate much of the area but contain sufficient natural openings to provide good quality winter range. There is potential to provide more forage during the fall-spring period with treatment of pinyon-juniper sites. The limited, xeric summer range remains an important limiting factor for deer populations on this subunit.

The two winter range study sites are located in Cottonwood Canyon and Nutters Canyon and are in low potential vegetative types. Both locations showed improvement from the 2000 indices when they were visited in 2005. The Cottonwood Canyon site produced a 73 index in 2005 and the Nutters Canyon site rated a score of 57. These ratings provide and excellent and good DCI index each, respectively. The combined winter range average DCI rating was 65 for the Anthro Mountain subunit. This figure indicates that deer winter range is in the excellent condition range.

Unit 11b, Nine Mile/Range Creek Subunit

There are 15 permanent range trend sites on the Range Creek subunit of the Nine Mile unit. One of these sites is on important summer habitat for deer and elk. The remaining 14 sites are on winter range or transitional winter range. Of these sites, 5 are low elevation winter range areas predominated by deer. The remaining 9 winter range sites are on the eastern slopes of the Tavaputs plateau draining in to the Green River and are utilized by both deer and elk. These sites were last surveyed in 2005.

The overall trend in relative winter range health as noted by the DCI has been stable over the past 11 years. Trends for the lower elevation deer winter range sites tend to have declining soils and herbaceous understory due to the prolonged drought conditions.. Browse trends were highly variable. Most range trend sites show improving browse production and vigor with relatively little deer use, while several high use sites show declining browse production. Upper elevation winter range sites showed relatively stable browse and soil trends with slightly declining herbaceous understory trends. The summer range site showed an improving soil and herbaceous understory trend.

High quality summer range is limiting on the subunit. A relatively small percentage of the unit occurs at high enough elevations to provide good summer range. Pinyon and juniper stands predominate at lower elevations while the open ridgetops continue to have increased use by wintering elk.

Duration of Plan

This unit management plan was approved by the Wildlife Board on _____ and will be in effect for five years from that date, or until amended.

APPENDIX

Unit 11a Anthro/Range Creek, Anthro Subunit

Duchesne and Uintah counties - Boundary begins at Duchesne and US-191; then southwest on US-191 to the Argyle Canyon Road, southeast on this road to the Nine Mile Canyon road; east along this road to its end near Bulls Canyon; south from the end of the road to Nine Mile Creek; east along this creek to the Green River; north along this river to the Duchesne River; west along this river to Highway US-40; west on US-40 to Duchesne.

Unit 11b Anthro/Range Creek, Range Creek Subunit

Carbon, Duchesne, and Emery counties - Boundary begins in Green River and Interstate 70; then west on I-70 to Highway US-6; northwest on US-6 to Highway US-191; northeast on US-191 to the Argyle Canyon road; southeast on the Argyle Canyon road to the Nine-mile Canyon road; east on the Nine-Mile Canyon road to its end near Bull Canyon; then continuing along Nine-Mile Creek to the Green River; south along the Green River to I-70.